

Appln. Serial No. 10/032,781

**AMENDMENT AFTER FINAL REJECTION**

Docket No. KFHI-101

**REMARKS**

Claims 1-37 are pending herein. By this Amendment, Claims 1, 14, and 37 are amended. Support for the claim amendments is found in the specification at, *inter alia*, paragraphs [0010], [0039], and [0048]. No new matter is added by this Amendment.

Applicants thank Examiner Drew Becker for the courtesies extended to their representative, Barry I. Hollander, during an August 5, 2004 telephonic interview. Although Applicants' representative requested a personal interview, Examiner Becker stated that any arguments should be presented in writing. Applicants' separate record of the telephonic interview is set forth in the foregoing amendments and the following remarks.

Entry of the Amendment is proper because it: (a) places the application in condition for allowance; (b) does not raise any new issues requiring further search and/or consideration; (c) does not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) places the application in better form for appeal, should an appeal be necessary.

**I. FORMAL MATTERS**

Claim 14 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enabling requirement. This rejection is respectfully traversed.

Claim 14 properly recites that the dairy component may comprise cocoa. Thus, cocoa is not defined as a dairy product, as asserted by the Examiner. Rather, the dairy component comprises cocoa and therefore by definition has a dairy portion. Nevertheless to advance prosecution, Claim 14 is amended to define that the dairy component may comprise a mixture of milk or milk solids and cocoa. Thus, it is clear that the dairy component of Claim 14 refers to a mixture of milk or milk solids and cocoa (powder

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made from cacao seeds). One of ordinary skill in the art would be able to practice the method of Claim 14 without undue experimentation. The requirements of 35 U.S.C. 112, first paragraph, are satisfied. Reconsideration and withdrawal of the rejection are respectfully requested.

**II. REJECTIONS UNDER 35 U.S.C. 103(a)**

Claims 1-7, 9-12, 14-26, and 37 were rejected under 35 U.S.C. 103(a) over Alikonis (Candy Technology) in view of Jackson (Sugar Confectionery Manufacture). This rejection is respectfully traversed.

Alikonis discloses processes for making caramels and chewy candies in a kettle. The method of Alikonis is a batch process using agitation. Alikonis does not disclose the continuous production of a dairy-based confection or the use of static mixing. Alikonis also does not disclose using any heat exchangers as claimed, much less heating an aqueous sugar composition in a first heat exchanger or heating a dairy-based mass in a second heat exchanger.

Jackson does not overcome the deficiencies of Alikonis. Jackson discloses the manufacture of caramel, toffee, and fudge (Chapter 8). On page 180, Jackson discloses that plate heat exchangers have been used for confectionary processing. According to Jackson, a plate heat exchanger is compact and it is easy to install additional plates in the heat exchanger. The “dissolving and cooking stages are part of the same plate assembly” (emphasis added). Jackson further states that caustic cleaning of the plates is necessary at intervals and that the use of a plate heat exchanger for toffee is not well established and has difficulties with long-term operation.

As discussed in paragraphs [0005]-[0006] of the specification, candy masses containing dairy components are temperature sensitive and may cause problems with the

burning, denaturing, or precipitating of protein, thereby fouling heat transfer surfaces.

The present invention solves these problems by injecting the dairy component between a first heat exchanger and a second heat exchanger into a boiling sugar-based mass. As a result, rapid cooking of a dairy-containing mass in a downstream second heat exchanger prevents substantial precipitation of protein and fouling of the heat exchanger surfaces. See paragraphs [0010] and [0018]-[0019]. Thus, unlike Jackson, the present continuous method of making a dairy-based confection allows for prolonged periods of operation. See paragraph [0021].

There is no teaching, recognition, or appreciation in Jackson of injecting a dairy component between first and second heat exchangers as recited in independent Claims 1 and 37. Similarly, Jackson does not teach or suggest: (1) admixing a dairy component with the boiling, aqueous sugar composition after the boiling, aqueous sugar composition exits a first plate and frame heat exchanger to form a dairy-based mass; and (2) heating the dairy-based mass in a second plate and frame heat exchanger, as recited in independent Claim 23. Any combination of Alikonis and Jackson would have resulted in the use of a single plate heat exchanger assembly, which would require caustic cleaning at intervals due to fouling of the plates. In contrast, the presently claimed method solves the very problems acknowledged by Jackson -- burning and denaturing of protein resulting in fouling and difficulties in long-term operation.

Applicants respectfully assert that they have not merely attacked the teachings of the references individually, but rather have shown that the combined teachings would not have led to the claimed methods. Further, the Examiner has provided no reasoning or basis as to why the two-stage cooking disclosed in the Cast Caramel on page 152 of Alikonis would have been conducted in two separate heat exchangers in view of Jackson, which requires dissolving and cooking in the same plate assembly. See page 180 of

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Jackson. Even if two separate heat exchangers were employed, there is no teaching or suggestion in Jackson alone or in combination with Alikonis to add a dairy component between them rather than into one of them.

The Examiner also maintains that Alikonis teaches heating above the initial boiling point as claimed because at page 149 the reference teaches boiling of a candy mass until it is cooked to a firm ball. However, cooking to a firm ball is achieved by cooking at the boiling point, not above it.

Thus, it would not have been obvious for one of ordinary skill in the art to practice the claimed methods in view of the combined teachings of Alikonis and Jackson. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 8 and 13 were rejected under 35 U.S.C. 103(a) over Alikonis in view of Jackson and U.S. Patent No. 3,677,771 (Kolar). This rejection is respectfully traversed.

As noted, Alikonis and Jackson do not teach or suggest injecting a dairy component between first and second heat exchangers as claimed in independent Claim 1 and its dependent claims.

Kolar does not overcome the deficiencies of Alikonis and Jackson. Kolar discloses the production of a caramel-type confectionary product from a reconstitutable dried condensed milk product made by mixing concentrated fluid dairy whey with a proteinaceous source; adding a partially hydrogenated fat to the mixture; drying the condensed milk provided; and incorporating a sequestering agent to sequester any calcium ions present in the milk product (Abstract).

Kolar discloses vacuum evaporation of fluid sweet dairy whey (col. 7, line 75 - col. 8, line 2). The concentrated whey is then mixed with casein and vegetable oil and processed to form a powdered product. Kolar does not teach or suggest increasing the solids content of a cooked dairy-based mass by the application of vacuum, as recited in

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Claim 8. It is not seen why it would have been obvious “to incorporate the vacuum flashing” of Kolar into the method of Alikonis since “Alikonis already included flashing” as stated in the paragraph bridging pages 4-5 of the Office Action. Alikonis does not teach flashing of a cooked dairy-based mass in the methods disclosed on pages 149 and 152. In addition, there is no teaching or suggestion in either Kolar or Alikonis to use vacuum flashing for “quicker drying” as asserted in the Office Action.

Moreover, like Alikonis and Jackson, Kolar does not teach or suggest injecting a dairy component between first and second heat exchangers as claimed. Thus, it would not have been obvious for one of ordinary skill in the art to practice the claimed methods in view of the combined teachings of Alikonis, Jackson, and Kolar. Reconsideration and withdrawal of the rejection are respectfully requested.

IV. CONCLUSION

In light of the foregoing remarks, this application is in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application.

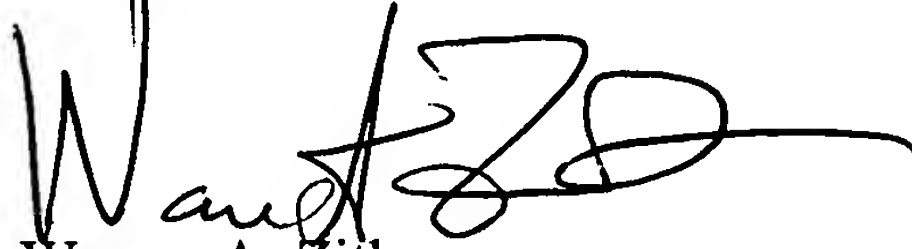
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Any fees should be charged to, or any overpayment in fees should be credited to,  
Deposit Account No. 501032 (Docket #KFHI-101).

Respectfully submitted,



Warren A. Zitlau

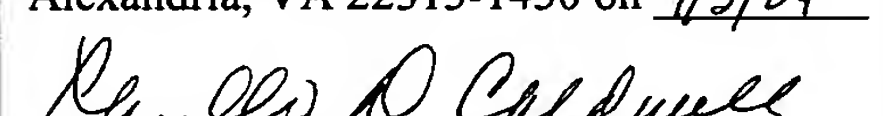
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September 3, 2004

<p align="center"><b><u>CERTIFICATE OF MAILING</u></b></p> <p>I hereby certify that this correspondence dated <u>9/3/04</u> is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on <u>9/3/04</u>.</p> <p align="right"> _____ HOLLANDER LAW FIRM, P.L.C. Suite 305 10300 Eaton Place Fairfax, Virginia 22030</p> <p>Date: <u>9/3/04</u></p>
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